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#### SHANGHAI MACHINERY, CASTING, AND IRON HIDUSTRIES

Chi-hateh Chih-tsao (Machinery Manufacturing) Shanghai, 15 Mar 1950

/Summary: In Shanghai there are more than 1,500 machinery plants equipped with about 20,000 machine tools. The six major steel casting firms in Shanghai are capable of producing 300 tons of steel ingots, 30-500 tons of cast steel, 50 tons of alloy steel, and about 30 tons of manganere steel. Six publicly and privately operated cast-from plants in Changhai are planning to in tall cupols furnaces. The 31 copper casting plants have a tool productive capacity of 60 tons of copper products per month, 7 lie seven aluminum casting plants have productive capacity of 100 tops of aluminum products per month.

There are more than 1,500 large and small-scale machinery plants in Shanghai. These plants are equipped with more than 20,000 machine tools and employ more than 50,000 men. More than one third of the machinery manufactured in China are being produced by these Shanghai plants.

According to statistics released by the Machinery Industry Association, the majority of the 20,000 machine tools in Shanghai are distributed among 1,000 or more publicly and privately operated plants. About 10 percent of the equipment owned by publicly operated plants is said to be comparatively new, but the equipment of the privately operated plants is all outdated and as a result, their production is comparatively low.

Distribution of machine tools between publicly and privately operated machinery plants in Shanghai is as follows:

Equipment	Publicly Operated Plants	Privately Operated Plants
Lathes	1,029	6,000
Shaping Machines		1,100
Arched shaping machines	227	280
Drilling machines	271	1,700
Milling machines	265	680
Grinding machines	156	280
Presses	25 (approximate)	750
Hobbing machines	20 (approximate)	70
Boring machines	15 (approximate)	
Unclassified equipment or other machine tools	ad 391	

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The equipment listed above does not include the machine tools of machinery plants being operated by textile, communications, power and similar companies and plants, as well as other small-scale machinery plants using self-improvised equipment.

### Shanghai Steel Casting Plants

There are six major steel casting firms in Shanghai. They are: Shang-kang, Asia, Ta-hsin, Jih-ya, Chung-chi, and Ta-lung. Equipment of these firms include a 15-ton Martin furnace, two 10-ton Martin furnaces, a 1.5-ton Bessemer furnace, three 1-ton Bessemer furnaces, three 3-ton electric furnaces, a 2-ton electric furnace and two one-ton electric furnaces. These firms are capable of producing about 300 tons of steel ingots, 80-500 tons of cast steel, 50 tons of alloy steel, and about 30 tons of manganese steel (70 percent manganese) per month. In addition to these six firms, there are 20 rolling mills in Shanghai equipped with 176 rolling machines to produce from 5,000 to 9,000 tons of rolled steel period not given).

# Cast Fron Plants in Shanghai

In addition to the large-scale publicly operated machinery plant engaged in the production of pig iron, there are some 260 pig iron plants in Shanghai. Only three of these plants employ between 50 to 100 men, the remainder less than 50 men. About 70 percent of these plants are equipped only with a small-scale houtzu [literally monkey] furnace with a casting capacity of 1,000 pounds and under, while the remaining 30 percent are equipped with a 16"-32" chamber. Plans are being made by the following publicly and privately operated plants to install cupola furnaces:

# 1. Publicly Operated Plants

Ch'iu-chiang Machinery Plant, Wu-sung Machinery Plant, T'ung-yung Machinery Factory, China Textile Machinery Manufacturing Company, and Chill Cast Wheel Plant

#### 2. Privately Operated Plant

Shanghai Machinery Factory

According to statistics released by the Casting Industry Association, the cast-iron plants in Shanghai were producing only 3,000 - 3,500 tons of cast iron per month in 1948 when the KMT government adopted the gold yuan standard despite the fact that their maximum production capacity was about 5,000 tons.

According to the same statistics released by the above-mentioned association, there are 31 copper casting plants in Shanghai with a total productive capacity of about 60 tons of copper products per month and seven aluminum casting plants with a productive capacity of about 20 tons of aluminum products per month.

The total motive power of the Shanghai privately operated iron, copper and aluminum casting plants in December 1949 was only about 100 horsepower as compared to their previous normal capacity of about 3,000 horsepower. This does not include, however, the casting output of the large-scale privately operated machinery plants in Shanghai.

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